



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0145; Project Identifier MCAI-2021-00522-R]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Canada Limited (Type Certificate Previously Held by Bell Helicopter Textron Canada Limited) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2019-11-05, which applies to Bell Helicopter Textron Canada Limited (now Bell Textron Canada Limited) Model 429 helicopters having certain tail rotor (TR) pitch link assemblies. AD 2019-11-05 requires inspecting the TR pitch link assemblies, and replacing certain pitch link bearings. Since the FAA issued AD 2019-11-05, the FAA has determined that all TR pitch link assemblies are affected by the unsafe condition. This proposed AD would continue to require the actions specified in AD 2019-11-05, and would revise the applicability and require inspections of certain other TR pitch link assemblies. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bell Textron Canada Limited, 12,800 Rue de l’Avenir, Mirabel, Quebec J7J 1R4, Canada; telephone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email productsupport@bellflight.com; or at <https://www.bellflight.com/support/contact-support>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0145; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the Transport Canada Civil Aviation (TCCA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L’Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0145; Project Identifier MCAI-2021-00522-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email:

hal.jensen@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2019-11-05, Amendment 39-19651 (84 FR 26546, June 7, 2019) (AD 2019-11-05), which applies to certain Bell Helicopter Textron Canada Limited Model 429 helicopters. AD 2019-11-05 requires inspecting the TR pitch link assemblies, and replacing certain pitch link bearings. The FAA issued AD 2019-11-05 to address a worn pitch link, which if not corrected, could result in pitch link failure and subsequent loss of control of the helicopter.

Actions Since AD 2019-11-05 Was Issued

Since the FAA issued AD 2019-11-05, the FAA has determined that additional TR pitch link assemblies are affected by the unsafe condition. AD 2019-11-05 applies to helicopters with a pitch link assembly part number (P/N) 429-012-112-101, 429-012-112-103, 429-012-112-101FM, or 429-012-112-103FM installed. However, as specified in the corresponding TCCA AD, CF-2015-16R2, dated April 3, 2017 (TCCA AD CF-2015-16R2), all pitch link assemblies are part of the repetitive inspections.

The TCCA, which is the aviation authority for Canada, has issued TCCA AD CF-2015-16R3, dated April 30, 2021 (TCCA AD CF-2015-16R3) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain Bell Helicopter Textron Canada Limited Model 429 helicopters. TCCA AD CF-2015-16R3 retains the requirements of TCCA AD CF-2015-16R2 and revises the applicability by specifying certain helicopter serial numbers to account for new production helicopters which have already incorporated the new pitch link assemblies and corrected the unsafe condition. TCCA AD CF-2015-16R3 also specifies that installing a new pitch link assembly terminates the repetitive inspections.

This proposed AD was prompted by a report of a worn pitch link, and the FAA's determination that that all TR pitch link assemblies are affected by the unsafe condition. The FAA is proposing this AD to address a worn pitch link, which if not corrected, could result in pitch link failure and subsequent loss of control of the helicopter. See the MCAI for additional background information.

FAA's Determination

These products have been approved by the aviation authority of Canada, and are approved for operation in the United States. Pursuant to the bilateral agreement with Canada, TCCA, its technical representative, has notified the FAA of the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Bell Alert Service Bulletin No. 429-15-16, Revision C, dated October 16, 2020. This service information contains procedures for inspecting the TR pitch link assemblies, replacing certain pitch link bearings, and replacement of the pitch link assemblies. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements in this NPRM

This proposed AD would retain all of the requirements of AD 2019-11-05. This proposed AD would revise the applicability and require inspections of all TR pitch link assemblies.

Costs of Compliance

The FAA estimates that this proposed AD affects 120 helicopters of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained inspections from AD 2019-11-05	2 work-hours X \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	\$20,400 per inspection cycle
New inspections	2 work-hours X \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	\$20,400 per inspection cycle

The FAA estimates the following costs to do any necessary on-condition replacements that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

Estimated costs of on-condition actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Bearing replacements	3 work-hours X \$85 per hour = \$255	\$3,340	\$3,343	\$401,160

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2019-11-05, Amendment 39-19651 (84 FR 26546, June 7, 2019); and

b. Adding the following new AD:

Bell Textron Canada Limited (Type Certificate Previously Held by Bell Helicopter Textron Canada Limited): Docket No. FAA-2022-0145; Project Identifier MCAI-2021-00522-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

(1) This AD replaces AD 2019-11-05, Amendment 39-19651 (84 FR 26546, June 7, 2019) (AD 2019-11-05).

(2) This AD affects AD 2020-17-10, Amendment 39-21215 (85 FR 49941, August 17, 2020) (AD 2020-17-10).

(c) Applicability

This AD applies to Bell Textron Canada Limited (type certificate previously held by Bell Helicopter Textron Canada Limited) Model 429 helicopters, certificated in any category, serial numbers 57001 through 57401 inclusive.

(d) Subject

Joint Aircraft System Component (JASC) Code 6720, Tail Rotor Control System.

(e) Unsafe Condition

This AD was prompted by a report of a worn pitch link. The FAA is issuing this AD to address a worn pitch link, which if not corrected, could result in pitch link failure and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Requirements

(1) For pitch link assembly part number (P/N) 429-012-112-101, 429-012-112-103, 429-012-112-101FM, and 429-012-112-103FM: Within 50 hours time-in-service (TIS) after July 12, 2019 (the effective date of AD 2019-11-05) and thereafter at intervals not to exceed 50 hours TIS:

(i) Perform a dimensional inspection of each inboard and outboard pitch link assembly for axial and radial bearing play. With a 10X or higher power magnifying glass, inspect the bearing liner for a crack, deterioration of the liner, and extrusion of the liner from the plane. If there is axial or radial play that exceeds allowable limits, or if there is a crack, deterioration of the liner, or extrusion of the liner, before further flight, replace the bearing.

(ii) Inspect the pitch link assembly sealant for pin holes and voids and to determine if the sealant thickness is 0.025 inch (0.64 mm) or less, extends over the roll staked lip by 0.030 inch (0.76 mm) or more, and is clear of the bearing ball. If there is a pin hole or void, or if the sealant exceeds 0.026 inch (0.66 mm), does not extend over the roll staked lip by 0.030 inch (0.76 mm) or more, or is not clear of the bearing ball, before further flight, replace the bearing.

(2) For pitch link assembly part number (P/N) 429-012-112-101, 429-012-112-103, 429-012-112-101FM, and 429-012-112-103FM, within 200 hours TIS following the initial inspection required by paragraph (g)(1) of this AD, or if the hours TIS of a pitch link assembly exceed 250 hours TIS or are unknown, at the next 50-hour-TIS inspection required by paragraph (g)(1) of this AD:

(i) Replace each bearing P/N 429-312-107-103 with a date of manufacture before January 13, 2015, with a bearing P/N 429-312-107-103 that was manufactured on or after January 13, 2015.

(ii) Using a white permanent fine point marker or equivalent, re-identify the pitch link assembly:

(A) Re-identify P/N 429-012-112-101 and 429-012-112-101FM as 429-012-112-111FM.

(B) Re-identify P/N 429-012-112-103 and 429-012-112-103FM as 429-012-112-113FM.

(iii) Apply a coating of DEVCON 2-TON (C-298) or equivalent over the new P/N.

(h) New Requirements

For pitch link assemblies other than P/N 429-012-112-101, 429-012-112-103, 429-012-112-101FM, and 429-012-112-103FM: Within 50 hours TIS after the effective date of this AD and thereafter at intervals not to exceed 50 hours TIS:

(1) Perform a dimensional inspection of each inboard and outboard pitch link assembly for axial and radial bearing play. With a 10X or higher power magnifying glass, inspect the bearing liner for a crack, deterioration of the liner, and extrusion of the liner from the plane. If there is axial or radial play that exceeds allowable limits, or if there is a crack, deterioration of the liner, or extrusion of the liner, before further flight, replace the bearing.

(2) Inspect the pitch link assembly sealant for pin holes and voids and to determine if the sealant thickness is 0.025 inch (0.64 mm) or less, extends over the roll staked lip by 0.030 inch (0.76 mm) or more, and is clear of the bearing ball. If there is a pin hole or void, or if the sealant exceeds 0.026 inch (0.66 mm), does not extend over the

roll staked lip by 0.030 inch (0.76 mm) or more, or is not clear of the bearing ball, before further flight, replace the bearing.

(i) Terminating Action for Certain Actions in AD 2020-17-10

Accomplishing the initial inspection required by paragraph (g)(1) or (h) of this AD constitutes terminating action for the inspections required by paragraph (f)(2) of AD 2020-17-10 for that pitch link assembly only.

(j) Optional Terminating Action

The repetitive inspections required by paragraph (h) of this AD are no longer required for helicopters that incorporate pitch link assemblies, P/N 429-012-212-105 or 429-012-212-107, in accordance with Part III of the Accomplishment Instructions of Bell Alert Service Bulletin No. 429-15-16, Revision C, dated October 16, 2020.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

(1) For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant

Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email:

hal.jensen@faa.gov.

(2) Bell Alert Service Bulletin No. 429-15-16, Revision C, dated October 16, 2020, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; telephone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email productsupport@bellflight.com; or at <https://www.bellflight.com/support/contact-support>. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in Transport Canada Civil Aviation (TCCA) AD CF-2015-16R3, dated April 30, 2021 (TCCA AD CF-2015-16R3). You may view the Transport Canada AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2022-0145.

Issued on February 15, 2022.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.